

## AMENDMENTS

### In the Claims

Please cancel claims 30, 39, 42, 71, and 73 without prejudice.

Please amend claims 29, 38, 40, 43-44, and 70 as shown herein.

Claims 1-29, 31-38, 40-41, 43-70, 72, and 74 are pending and are listed following:

**1. (original)** A system, comprising:

a first device configured to request a data set having a plurality of individual records, the individual records having information to describe data in the data set;

a second device configured to receive the request and encode the data set with a compression function to generate an encoded data set, the compression function determined from information that is common to the individual records in the data set;

the second device further configured to communicate an expansion function to the first device, the expansion function including the information that is common to the individual records in the data set; and

the first device further configured to receive the encoded data set and expand the encoded data set with the expansion function, wherein individual records in the encoded data set are expanded to include the common information.

1           **2. (original)**   A system as recited in claim 1, further comprising a  
2 communication component configured to compress the encoded data set using a  
3 content compression algorithm before communicating the encoded data set to the  
4 first device.

5  
6           **3. (original)**   A system as recited in claim 1, further comprising a  
7 first communication component configured to compress the encoded data set using  
8 a content compression algorithm before communicating the encoded data set to the  
9 first device, and a second communication component configured to decompress  
10 the encoded data set before the first device receives the encoded data set.

11  
12           **4. (original)**   A system as recited in claim 1, wherein the second  
13 device is further configured to determine the compression function after receiving  
14 the request for the data set.

15  
16           **5. (original)**   A system as recited in claim 1, wherein the first device  
17 is further configured to render the individual records in the data set after the first  
18 device expands the encoded data set with the expansion function.

19  
20           **6. (original)**   A system as recited in claim 1, wherein the first device  
21 is further configured to render the individual records in the data set before the first  
22 device expands the encoded data set with the expansion function.

1           7.     **(original)**    A system as recited in claim 1, wherein the second  
2 device encodes the entire data set with the compression function and  
3 communicates the encoded data set to the first device.

4  
5           8.     **(original)**    A system as recited in claim 1, wherein the second  
6 device generates the encoded data set by removing the information that is common  
7 to the individual records in the data set.

8  
9           9.     **(original)**    A system as recited in claim 1, wherein the second  
10 device generates the encoded data set by removing only the information that is  
11 common to the individual records in the data set.

12  
13          10.    **(original)**    A system as recited in claim 1, wherein the encoded  
14 data set includes the data without the information that is common to the individual  
15 records in the data set.

16  
17          11.    **(original)**    A system as recited in claim 1, wherein the data is not  
18 encoded with the compression function, and wherein the information that is  
19 common to the individual records in the data set is encoded with the compression  
20 function.

1           **12. (original)**   A logical compression system, comprising:  
2           a data set having a plurality of individual records, the individual records  
3           having semantic information to describe data in the data set;  
4           a compression function determined from semantic information that is  
5           common to the individual records in the data set;  
6           an expansion function that includes the semantic information that is  
7           common to the individual records in the data set; and  
8           wherein the data set is encoded using the compression function to generate  
9           an encoded data set that is communicated to a destination device along with the  
10          expansion function, such that the encoded data set can be expanded at the  
11          destination device.

12  
13          **13. (original)**   A logical compression system as recited in claim 12,  
14          wherein the encoded data set is compressed using a content compression algorithm  
15          before the encoded data set is communicated to the destination device.

16  
17          **14. (original)**   A logical compression system as recited in claim 12,  
18          wherein the encoded data set is compressed using a content compression algorithm  
19          before the encoded data set is communicated to the destination device, and  
20          wherein the encoded data set is decompressed before the destination device  
21          receives the encoded data set.

1           **15. (original)**   A logical compression system as recited in claim 12,  
2 wherein the individual records include text data and semantic information  
3 associated with the text data to describe the text data.

4  
5           **16. (original)**   A logical compression system as recited in claim 12,  
6 wherein the individual records include text data and semantic information  
7 associated with the text data to describe the text data, and wherein the quantity of  
8 the semantic information is significantly greater than the quantity of the text data  
9 in each of the individual records.

10  
11           **17. (original)**   A logical compression system as recited in claim 12,  
12 wherein the individual records include image data and semantic information  
13 associated with the image data to describe the image data.

14  
15           **18. (original)**   A logical compression system as recited in claim 12,  
16 wherein the individual records include image data and semantic information  
17 associated with the image data to describe the image data, and wherein the  
18 quantity of the semantic information is significantly greater than the quantity of  
19 the image data in each of the individual records.

20  
21           **19. (original)**   A logical compression system as recited in claim 12,  
22 wherein the compression function is determined after receiving a request for the  
23 data set.

1           **20. (original)**   A logical compression system as recited in claim 12,  
2 wherein the compression function is determined before receiving a request for the  
3 data set.

4  
5           **21. (original)**   A logical compression system as recited in claim 12,  
6 wherein individual records in the encoded data set are rendered at the destination  
7 device after the encoded data set is expanded.

8  
9           **22. (original)**   A logical compression system as recited in claim 12,  
10 wherein individual records in the encoded data set are rendered at the destination  
11 device before the encoded data set is expanded.

12  
13           **23. (original)**   A logical compression system as recited in claim 12,  
14 wherein the entire data set is encoded with the compression function to generate  
15 the encoded data set that is communicated to the destination device.

16  
17           **24. (original)**   A logical compression system as recited in claim 12,  
18 wherein the encoded data set is generated by removing the semantic information  
19 that is common to the individual records in the data set.

20  
21           **25. (original)**   A logical compression system as recited in claim 12,  
22 wherein the encoded data set is generated by removing only the semantic  
23 information that is common to the individual records in the data set.

1           **26. (original)**   A logical compression system as recited in claim 12,  
2 wherein the encoded data set includes the data without the semantic information  
3 that is common to the individual records in the data set.

4  
5           **27. (original)**   A logical compression system as recited in claim 12,  
6 wherein the data is not encoded with the compression function, and wherein the  
7 semantic information that is common to the individual records in the data set is  
8 encoded with the compression function.

9  
10          **28. (original)**   A computing device comprising the logical  
11 compression system as recited in claim 12.

1           **29. (currently amended)**     A logical compression system,  
2 comprising:

3           an encoded data set having a plurality of individual records, each of the  
4 individual records including data;

5           an expansion function that includes semantic information that is common to  
6 the individual records in the encoded data set, the semantic information describing  
7 the data in each of the individual records;

8           wherein the encoded data set and the expansion function are received from  
9 a data provider that generates the encoded data set with a compression function  
10 determined from the common semantic information; and

11          wherein the individual records in the encoded data set are expanded with  
12 the expansion function such that each of the individual records include the data  
13 and the semantic information that is common to the individual records.

14  
15           **30. (canceled)**

16  
17           **31. (original)**     A logical compression system as recited in claim 29,  
18 wherein the data is text data and each of the individual records include the text  
19 data and semantic information associated with the text data after being expanded  
20 with the expansion function, and wherein the quantity of the semantic information  
21 associated with the text data is significantly greater than the quantity of the text  
22 data in each of the individual records.



1           **32. (original)**   A logical compression system as recited in claim 29,  
2 wherein the data is image data and each of the individual records include the  
3 image data and semantic information associated with the image data after being  
4 expanded with the expansion function, and wherein the quantity of the semantic  
5 information associated with the image data is significantly greater than the  
6 quantity of the image data in each of the individual records.

7  
8           **33. (original)**   A logical compression system as recited in claim 29,  
9 wherein the individual records in the encoded data set are rendered after the  
10 individual records are expanded with the expansion function.

11  
12           **34. (original)**   A logical compression system as recited in claim 29,  
13 wherein individual records in the encoded data set are rendered before the  
14 individual records are expanded with the expansion function.

15  
16           **35. (original)**   A logical compression system as recited in claim 29,  
17 wherein the encoded data set includes the data without the semantic information  
18 that is common to the individual records in the encoded data set.

19  
20           **36. (original)**   A logical compression system as recited in claim 29,  
21 wherein the data is not expanded with the expansion function, and wherein the  
22 semantic information that is common to the individual records in the encoded data  
23 set is expanded with the expansion function.

1           **37. (original)** A computing device comprising the logical  
2 compression system as recited in claim 29.

3  
4           **38. (currently amended)** A method, comprising:  
5           determining a compression function for a data set having a plurality of  
6 individual records, the compression function determined from information that is  
7 common to the individual records in the data set;  
8           generating an encoded data set using the compression function by removing  
9 the information that is common to the individual records in the data set; ~~and~~  
10           determining an expansion function for the encoded data set, the expansion  
11 function including the information that is common to the individual records in the  
12 data set; and  
13           transmitting the expansion function and the encoded data set to a  
14 destination device.

15  
16           **39. (canceled)**

17  
18           **40. (currently amended)** A method as recited in claim 38, further  
19 comprising compressing the encoded data set using a content compression  
20 algorithm to generate a compressed encoded data set, ~~and transmitting the~~  
21 ~~expansion function and the compressed encoded data set to a destination device.~~

1           **41. (original)**   A method as recited in claim 38, further comprising  
2 expanding the encoded data set using the expansion function, wherein individual  
3 records in the encoded data set are expanded to include the common information.

4  
5           **42. (canceled)**

6  
7           **43. (currently amended)**   A method as recited in claim ~~42~~, 41,  
8 further comprising displaying the individual records in the encoded data set after  
9 said expanding the encoded data set.

10  
11           **44. (currently amended)**   A method as recited in claim ~~42~~, 41,  
12 further comprising displaying the individual records in the encoded data set before  
13 said expanding the encoded data set.

14  
15           **45. (original)**   A method as recited in claim 38, wherein the  
16 individual records include text data and information associated with the text data  
17 to describe the text data.

18  
19           **46. (original)**   A method as recited in claim 38, wherein the  
20 individual records include text data and information associated with the text data  
21 to describe the text data, and wherein the quantity of the information is  
22 significantly greater than the quantity of the text data in each of the individual  
23 records.  
24  
25

1           **47. (original)** A method as recited in claim 38, wherein the  
2 individual records include image data and information associated with the image  
3 data to describe the image data.

4  
5           **48. (original)** A method as recited in claim 38, wherein the  
6 individual records include image data and information associated with the image  
7 data to describe the image data, and wherein the quantity of the information is  
8 significantly greater than the quantity of the image data in each of the individual  
9 records.

10  
11           **49. (original)** A method as recited in claim 38, further comprising  
12 receiving a request for the data set, and said determining the compression function  
13 after said receiving the request.

14  
15           **50. (original)** A method as recited in claim 38, further comprising  
16 receiving a request for the data set, and said determining the compression function  
17 before said receiving the request.

18  
19           **51. (original)** A method as recited in claim 38, wherein the entire  
20 data set is encoded using the compression function when said generating the  
21 encoded data set.

1       **52. (original)** A method as recited in claim 38, wherein said  
2 generating includes removing only the information that is common to the  
3 individual records in the data set.

4  
5       **53. (original)** A method as recited in claim 38, wherein the  
6 individual records include data and information to describe the data, and wherein  
7 the encoded data set includes the data without the information that is common to  
8 the individual records in the data set.

9  
10       **54. (original)** A method as recited in claim 38, wherein:  
11 the individual records include data and information to describe the data;  
12 the data is not encoded using the compression function when said  
13 generating the encoded data set; and

14 the information that is common to the individual records in the data set is  
15 encoded using the compression function when said generating the encoded data  
16 set.

17  
18       **55. (original)** One or more computer-readable media comprising  
19 computer-executable instructions that, when executed, direct a computing system  
20 to perform the method of claim 38.

1           **56. (original)**   A method, comprising:  
2           identifying a compression function associated with a data set having a  
3           plurality of records, the compression function including semantic information that  
4           is common to multiple records in the data set;  
5           encoding the data set using the compression function to generate an  
6           encoded data set;  
7           identifying an expansion function associated with the encoded data set, the  
8           expansion function including the semantic information that is common to the  
9           multiple records in the data set; and  
10          transmitting the expansion function and the encoded data set to a  
11          destination device such that the destination device can expand the encoded data set  
12          using the expansion function.

13  
14          **57. (original)**   A method as recited in claim 56, further comprising  
15          compressing the encoded data set using a content compression algorithm before  
16          the encoded data set is transmitted to the destination device.

17  
18          **58. (original)**   A method as recited in claim 56, further comprising  
19          expanding the encoded data set with the expansion function, wherein multiple  
20          records in the encoded data set are expanded to include the common semantic  
21          information.  
22  
23  
24  
25

1           **59. (original)**   A method as recited in claim 56, further comprising  
2 displaying multiple records in the encoded data set after the destination device  
3 expands the encoded data set.

4  
5           **60. (original)**   A method as recited in claim 56, further comprising  
6 displaying multiple records in the encoded data set before the destination device  
7 expands the encoded data set.

8  
9           **61. (original)**   A method as recited in claim 56, wherein the plurality  
10 of records include text data and semantic information associated with the text data  
11 to describe the text data.

12  
13           **62. (original)**   A method as recited in claim 56, wherein the plurality  
14 of records include text data and semantic information associated with the text data  
15 to describe the text data, and wherein the quantity of the semantic information is  
16 significantly greater than the quantity of the text data in each of the plurality of  
17 records.

18  
19           **63. (original)**   A method as recited in claim 56, wherein plurality of  
20 records include image data and semantic information associated with the image  
21 data to describe the image data.

1           **64. (original)**   A method as recited in claim 56, wherein plurality of  
2 records include image data and semantic information associated with the image  
3 data to describe the image data, and wherein the quantity of the semantic  
4 information is significantly greater than the quantity of the image data in each of  
5 the plurality of records.

6  
7           **65. (original)**   A method as recited in claim 56, wherein the entire  
8 data set is encoded using the compression function when said encoding.

9  
10          **66. (original)**   A method as recited in claim 56, wherein said  
11 encoding comprises removing only the semantic information that is common to  
12 the multiple records in the data set.

13  
14          **67. (original)**   A method as recited in claim 56, wherein the plurality  
15 of records include data and semantic information to describe the data, and wherein  
16 the encoded data set includes the data without the semantic information that is  
17 common to the multiple records in the data set.



1           **68. (original)**   A method as recited in claim 56, wherein:  
2           the plurality of records include data and semantic information to describe  
3           the data;  
4           the data is not encoded using the compression function when said encoding;  
5           and  
6           the semantic information that is common to the multiple records in the data  
7           set is encoded using the compression function when said encoding.

8  
9           **69. (original)**   One or more computer-readable media comprising  
10          computer-executable instructions that, when executed, direct a computing system  
11          to perform the method of claim 56.

1           **70. (currently amended)**     A     computer-readable     medium  
2 comprising computer executable instructions that, when executed, direct a  
3 computing system to perform a method comprising:

4           identifying a compression function associated with a plurality of data  
5 records, the compression function including semantic information that is common  
6 to multiple records of the plurality of data records;

7           encoding the multiple records using the compression function to generate a  
8 data set; ~~and~~

9           identifying an expansion function associated with the data set, the  
10 expansion function including the semantic information that is common to the  
11 multiple records; and

12           transmitting the expansion function and the data set to a destination device  
13 such that the destination device can expand the data set using the expansion  
14 function.

15  
16           **71. (canceled)**

17  
18           **72. (original)**     One or more computer-readable media as recited in  
19 claim 70, wherein the method further comprises expanding the data set using the  
20 expansion function, wherein multiple records in the data set are expanded to  
21 include the common semantic information.

22  
23           **73. (canceled)**

1        **74. (original)**    One or more computer-readable media as recited in  
2 claim 70, wherein the plurality of records include data and semantic information to  
3 describe the data, and wherein the data set includes the data without the semantic  
4 information that is common to the multiple records.  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25